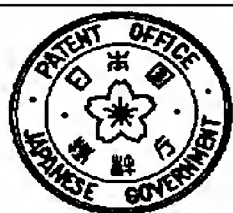


(19)



JAPANESE PATENT OFFICE

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**INOUE YASUhide**  
**NANAMI CHIEKO**

(54) **PHOSPHONIC ACID DIESTER DERIVATIVE**

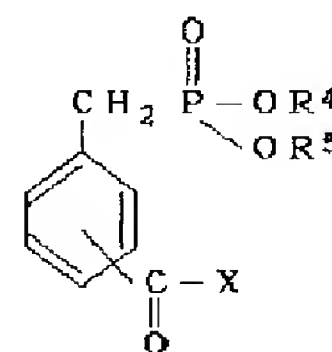
betes, etc.

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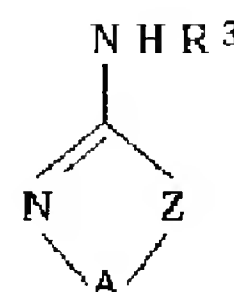
(57) Abstract:

PURPOSE: To obtain the novel compound useful as a therapeutic agent for hyperlipemia, cataract, diabetes, etc., having hypolipidemic action, hypoglycemic action, etc., by reacting a phosphorylmethylbenzoic acid with an amino nitrogen-containing heterocyclic compound.

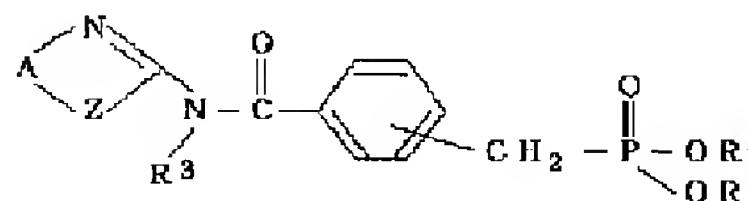
CONSTITUTION: A benzoic acid derivative of formula I ( $R^4$  and  $R^5$  are lower alkyl or phenyl lower alkyl; X is halogen) {e.g. 4-[(diethoxyphosphoryl) methyl]benzoyl chloride} is reacted with an amine of formula II [A is group of the formula  $CR^1=N$  ( $R^1$  is H, alkyl, phenyl, halogen, etc.) or group of the formula  $CR^1=CR^2$  ( $R^2$  is as shown for  $R^1$ );  $R^3$  is H, lower alkyl or phenyl; Z is S, O or  $NR^6$  ( $R^6$  is lower alkylphenyl)] (e.g. 2-amino-4-phenylthiazole) in dichloromethane in the presence of pyridine under cooling with ice to obtain the objective phosphonic acid diester derivative of formula III useful as a therapeutic agent for hyperlipemia, cataract, dia-



I



II



III